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HYSTERECTOMY AS AN ACCOMPANIMENT TO BILATERAL REMOVAL OF THE APPENDAGES.

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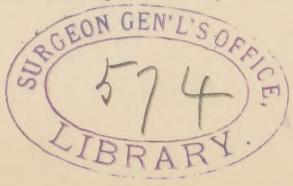
During the past five years decided changes have taken place in the methods of dealing with pelvic inflammatory diseases. Prior to 1890 it was the established custom in America to deal with irreparably diseased appendages by removal solely through an abdominal incision. Deliberate hysterectomy as an adjunct to ablation of the tubes and ovaries was not practiced. Péan in 1886 removed by the vagina the diseased uterus of a patient whom he had failed to cure by a previous removal of the appendages. From this and similar cases he sought to establish the principle that for certain forms of pelvic inflammatory disease hysterectomy, as well as removal of the appendages, should be performed. His work along these lines, which was reported before the Paris Academy of Medicine in 1890, seems to have attracted but little attention in this country. Operators of large experience who had carefully followed up the history of these cases, subsequent to the operation of bilateral ablation of the annexa, were forced to admit that many of their patients were not restored to health. Many still suffered from hæmorrhagic and purulent uterine discharges, and the reflex symptoms, which had prominently figured among the indications for the operation, persisted to a greater or less degree. In order to do away with these unfavorable sequelæ, portions of the uterus were surgically treated. It was urged that in every case where the appendages were to be removed for chronic inflammatory disease the uterus first should be thoroughly curetted and drained. Also that the tubes should be dissected out of the uterine



cornua in order that no diseased tissue be left behind. Although these procedures were carefully carried out, there still remained cases which presented the old train of symptoms. Hence when Polk's paper (1) on Hysterectomy (Suprapubic) for Salpingitis and Ovaritis appeared in the latter part of 1893, in which hysterectomy was advocated in every case where both appendages had been removed for serious disease, the idea, coinciding as it did with the clinical observations of many operators was eagerly seized upon by prominent gynæcologists throughout the country and immediately put into practice. Since that time hysterectomies have been done by the score in this class of cases. Is it not well to pause after three years' work in this line and ask ourselves *not* how many uteri have been removed during this period, but how much has been learned from careful microscopical and bacteriological examinations of these removed organs? In other words, do the pathological lesions found in the ablated uteri confirm the correctness of the reasoning of those who, mainly upon clinical grounds, advocate hysterectomy in certain inflammatory pelvic diseases. Henrotin (2), at the last meeting of the American Gynæcological Society, states that "the position of advanced, observant gynæcologists, who are not hampered by tradition or custom or afraid of their own stubborn dogmatic expressions in the past, can be stated as follows: 'In every operation for septic diseases of the female generative organs which demands the removal of the tubes and ovaries hysterectomy should also be performed unless there are contraindications forbidding it.'" Now, I consider this a fair statement of the present position of surgery upon the subject. The whole question will turn upon what interpretation be placed upon the phrase "contraindications forbidding it." The more carefully the removed uteri are studied in connection with the history of the case and the condition of the pelvis found at the time of the operation, the nearer will we be to determining what will constitute a "contraindication." If it can be shown that certain pathological uterine lesions, either of the mucosa or of the deeper structures, are susceptible of cure without removal of the organ, then considerable advance has been made toward establishing another contraindication. On the other hand, microscopical examination of the removed organ may show such decided morbid changes in its structure as to render any curative treatment short of ablation ineffectual. This line of research may not be the easiest or most

enticing. One would far rather have a universal rule for guidance, such as is laid down above, but conservative surgery does not advance along these lines. For example, it is much easier to adopt a universal rule to operate for appendicitis in every case as soon as the diagnosis be made. Yet those who advocate and observe this rule are in the vast minority, and ever will be so long as it can be proved that a certain percentage of cases recover by adhering to other modes of procedure. The technique of hysterectomy has been so perfected that in the hands of the skilled operator the mortality is increased but little if any over that resulting from removal of the tubes and ovaries alone. This fact, however, does not justify one in removing the uterus in every case. While clinical experience has shown me that a certain percentage of my cases were not cured after their pus tubes were removed, on the other hand it has also demonstrated that certain cases did recover after this treatment. It seems to me it is plainly the surgeon's duty under these circumstances to endeavor to solve the problem why one set of cases recovered and the other did not. The reason must lie, other things being equal, in the condition of the uterus at the time of the operation. How can these different conditions be studied and definite rules of procedure be established except it be upon both pathological and clinical grounds? Yet a perusal of the literature emanating from our gynæcologists upon hysterectomy for inflammatory affections will show that their conclusions have been arrived at mainly from a clinical consideration of the subject. That this is a dangerous mode of studying any surgical question and one liable to lead to grave errors is demonstrated by the abuse of ovariotomy when it was performed for symptoms and not for demonstrable pathological lesions. I fail to see the line of reasoning adopted by Polk. He—the advocate *par excellence* of conservative surgery, who would leave in an ovary or part of an ovary with everything else removed—advocates the removal of the uterus in every case of bilateral ablation of the appendages because *some* cases fail of cure without this additional procedure. What right has he or any one else to justify his position by claiming that the "emasculated uterus" is a useless organ and hence should be sacrificed? It should be sacrificed if it is so diseased that no known procedure can effect its cure, and that should be the only justifiable ground for its removal. One who claims so much for thorough dilatation and curettage of the uterus, in the way of depletion and

drainage, should surely obtain better results than are shown by his advocacy of the proposition to perform hysterectomy in each and every one of these cases.

I am making a plea against the adoption of a universal rule in regard to these cases as if it were for all time settled. I claim that the surgeon has no right to remove the uterus after ablation of the appendages unless he is convinced that the organ is diseased beyond the hope of cure by less radical methods. Krug, in the discussion of Polk's paper, said he had "never found a healthy uterus when there had been such inflammatory disease in the tubes and ovaries as would warrant bilateral salpingo-oöphorectomy." It is not a question, it would seem to me, of the uterus being always found diseased in these cases. As most inflammatory diseases of the annexa arise from some form of intra-uterine affection, it would be remarkable if the uteri were perfectly healthy. The question is, how much are they diseased and how can this disease be cured. I would not belittle the work of those who were the first to advocate hysterectomy for inflammatory disease. I consider it a great step in advance, and for certain conditions it is the only procedure which should be adopted. But I do believe that the prediction of Baldy (3), made two years ago in a paper on this subject, that uteri might be removed which might safely be left behind, has proved true to a far greater extent than any one could have predicted.

Even if the uterus be a functionless organ after bilateral salpingo-oöphorectomy, I do not think that the most radical operators would urge that it be removed for this cause alone if he could determine in what cases it could "safely" be left within.

The investigations of Wertheim (4) have thrown considerable light upon gonorrhœa of the uterus. They would tend to show that the deeper uterine structures are affected to a greater degree than formerly supposed. There is in many cases infiltration of the muscle with hyperplasia of the vessel walls. That the gonococci can penetrate into the muscularis is considered highly probable by Wertheim, though he has never, bacteriologically, demonstrated their existence (5). That a metritis with sensitiveness and a general enlargement occurs in gonorrhœal disease of the uterus is a well-known clinical fact, but that it is due to the gonococcus has never been proved, because the muscular tissues being an unfavorable soil for the germs, they either perish or pass on through the uterine wall to the peritonæum. Madlener (6) claims to have actually dem-

onstrated the gonococci in the muscular tissue in one case where the uterus was removed seven weeks after confinement.

Gonorrhœal disease of the uterine deeper structures offers, then, an explanation of the poor results obtained by treatment through the curette and drainage. Removal of the endometrium leaves the deeper structures still diseased, and in a short time the old symptoms will again appear. For this reason Werth (7) claims that, inasmuch as it is impossible clinically to distinguish the forms of endometritis in which the deeper tissue is involved, a thorough cauterization after curettage should always be employed. He recommends liquor ferri, and shows that after its use a regeneration of the epithelium is delayed.

These conclusions were arrived at from a careful microscopical examination of uteri removed after curettage performed some days previously, and are therefore more valuable than mere theoretical conjectures in the matter. In another article (8) he shows that the endometrium is never entirely removed, patches untouched by the curette always remaining. The cornua were most likely to be spared.

Just what percentage of cases of inflammatory disease of the annexa are due to gonorrhœa it is hard to say. Probably twenty-five per cent. would be a conservative estimate. It is generally conceded that Noeggerath's (9) picture of latent gonorrhœa and its frequency was exaggerated. Yet no one can question the important *role* played by the gonococcus in the production of pyosalpinx. Apparently gonorrhœa of the uterus is especially difficult of cure, and this should have weight in deciding whether hysterectomy should follow removal of pus tubes.

Schauta (10) takes a very decided stand in this matter. From the results of his observations he finds that only fifty-nine per cent. of cures result when both appendages are removed, and only twenty-three per cent. where one side was removed. When this lesion is due to gonorrhœa, he, like Tait, claims that when one side is removed the other should be also together with the uterus. This recommendation is not based, it seems to me, upon sound scientific principles, and is not advocated by the majority of gynæcologists. If this dictum be followed, then we practically concede that we are powerless in the presence of gonorrhœal disease to effect a cure short of hysterectomy. While the investigations referred to above have shown us why frequent failures result from our

efforts to cure gonorrhœa of the uterus, still I do not believe that every case of gonorrhœal endometritis is incurable. A certain proportion of the twenty-five per cent. will no doubt fall under this category, and in time we shall be in a position to recognize these cases and act accordingly. Much will depend upon the wishes of the patient in cases where one side is unaffected (11). She may demand the most radical operation if there exist a possibility of the other side becoming affected. On the contrary, she may be desirous of children, and be willing to risk the possibility of a secondary operation from the failure of intra-uterine treatment. Schauta makes every exertion to establish the diagnosis of gonorrhœa prior to operation, and during the progress of the latter has the contents of the pyosalpinx examined for the gonococci. If gonorrhœa is found to exist, both annexa and uterus are removed, on the ground that the gonococci work irreparable change in the uterus, while the inflammation of the appendages due to streptococcus and staphylococcus infection is usually one-sided, and the uterine lesion usually heals, and consequently the uterus can safely be left. As more than fifty per cent. of the cases of inflammatory disease of the annexa are considered to arise from infection after abortions or the puerperal state, it will readily be seen that, if Schauta's claims be true, there are many cases where the uterine lesions will either be cured or be amenable to treatment after the removal of the annexa.

More such investigations should be made, and, by the collection of both bacteriological and clinical data, rules can be formulated which will be of inestimable value to the surgeon in deciding what should be done in a given case. Whatever may be said to the contrary, hysterectomy is a much more radical procedure than bilateral removal of the annexa, and should never be performed except when demanded for the cure of the patient.

Some advocate hysterectomy on the ground that twelve per cent. of chronically diseased annexa requiring removal are found to be tubercular upon microscopical examination, and that the uterus may be affected also (12). This position is strengthened by the observation of Cullen (13), who thinks tubercular disease of the uterus is usually secondary to that in the tubes. But tubercuar uterine disease is usually demonstrable by the examination of scrapings, and hence it is possible to have a fairly clear idea of the condition of the uterus prior to the operation. Where the uterus

is found to be tubercular, it should always be removed, because of the difficulty of curing it by intra-uterine treatment.

Where the microscopical appearances of the annexa show tubercular deposits, it would seem advisable to remove the uterus, because of the serious nature of the disease, the possibility of the uterus being affected, and the difficulty of curing tubercular uterine disease by the curette. If the microscope shows tubercular disease in the appendages unsuspected before, the uterus can be removed by a secondary operation.

At the last meeting of this Association, a former chairman of this section, Dr. Eastman, remarked, in speaking of hysterectomy for fibroids, that he was not at all sure of what the after-effects of complete removal of the uterus would prove to be; that he found vaginal prolapse, cystocele, and rectocele following some cases, and that he would be obliged to suspend judgment until he had operated on more cases by this method. This by a man who has probably performed as many if not more complete hysterectomies than any operator in the country. It would seem as if the lesson to be learned from the remarks of such a man was to go a trifle slow in urging that the uterus be removed. It is generally conceded that, when we are obliged to remove an organ, it is a practical acknowledgment of defeat. Starting from this defeat, our surgical efforts involving removal may end in victory as regards the health of the individual.

We must continually keep before our minds the two great classes of cases calling for bilateral removal of the annexa, and it is only necessary to recall our past cases to find examples of each.

The first is where there is advanced disease, usually chronic, involving both annexa. The tubes and ovaries, either filled with or free from pus, are bound down in the posterior *cul-de-sac* and to the omentum and bowels by dense adhesions. Much labor must be expended in enucleating these masses, and much injury may be done the uterus in separating it from the pus sacs. Repeated infections, with resulting metritis and endometritis, have also greatly impaired its integrity. Here the indications are clearly for removal of the uterus. Its peritoneal covering may be so injured that if left it will be firmly bound down by dense post-operative adhesions, and give rise to great suffering. These are the cases where hysterectomy will give brilliant results as compared to the

older methods. But these are not the usual but the severe cases, and fortunately the exceptions.

The second class is the one which we are considering in this paper. Here the recurrent attacks of pelvic peritonitis have been fewer, hence the adhesions less. The tubes and ovaries may be the seat of purulent collections, or their contents may have become changed to a cheesy material, with thickening of the walls. The fimbriated extremities of the tubes are closed, and no conservative operative procedure can be entertained. The uterus is enlarged but fairly movable. The masses on either side having been removed without much difficulty, the operator is then confronted with the question of whether or not hysterectomy shall follow. His decision will depend largely upon the condition of the uterus and the possibility of its being cured by treatment directed to its interior, aided by the atrophy resulting from the removal of the appendages. Careful recorded observations, both pathological and clinical, will result in rules which will guide the surgeon in his choice of procedure.

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REFERENCES.

1. POLK: Hysterectomy for Salpingitis and Ovaritis. N. Y. Journal of Gyn. and Obs., vol. iii, 1893, pp. 1053 and 1088; vol. iv, 1894, p. 61.

2. HENROTIN: Conservative Surgical Treatment of Para-uterine and Peri-uterine Septic Diseases. Am. Gyn. and Obs. Journal, vol. vi, 1895, p. 769; N. Y. Journal of Gyn. and Obs., vol. iv., Jan., 1894, p. 72.

3. BALDY: Extirpation of the Uterus in Disease of the Annexa. Transactions of the Am. Gyn. Society, 1894.

4. WERTHEIM: Central. f. Gyn., 1895, No. 26.

5. WERTHEIM: Deut. Med. Woch., No. 27, July 4, 1895.

6. MADLENER: Central. f. Gyn., Dec. 14, 1895.

7. WERTH: Archiv f. Gyn., Bd. xlix, Heft 2.

8. WERTH: Central. f. Gyn., 1895, No. 29.

9. NOEGGERATH: Transactions of the Am. Gyn. Society, 1876.

10. SCHAUTA: Central. f. Gyn., 1895, No. 29.

11. NOBLE: Certain Aspects of Gonorrhœa in Women. Am. Gyn. Trans., vol. xvii, 1892.

12. WILLIAMS: Johns Hopkins Hospital Reports, 1892, vol. iii.

13. CULLEN: Johns Hopkins Hospital Reports, vol. iv, Nos. 7 and 8.